

Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

B272A

**MATHEMATICS C
(GRADUATED ASSESSMENT)**

MODULE M2 – SECTION A

MONDAY 21 JUNE 2010: Afternoon

DURATION: 30 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on the Question Paper

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

Geometrical instruments

Tracing paper (optional)

WARNING

**No calculator can be used for
Section A of this paper.**

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

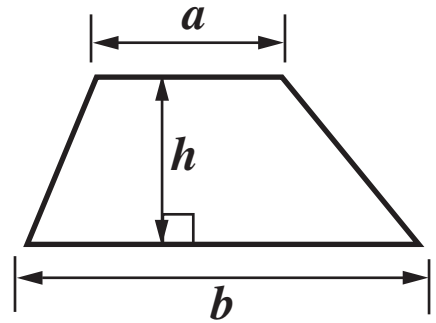
- **Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes on the first page.**
- **Use black ink. Pencil may be used for graphs and diagrams only.**
- **Read each question carefully and make sure that you know what you have to do before starting your answer.**
- **Show your working. Marks may be given for a correct method even if the answer is incorrect.**
- **Answer ALL the questions.**
- **Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your Candidate Number, Centre Number and question number(s).**

INFORMATION FOR CANDIDATES

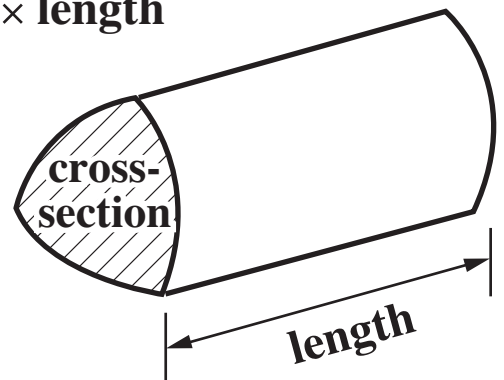
- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this Section is 25.**

FORMULAE SHEET

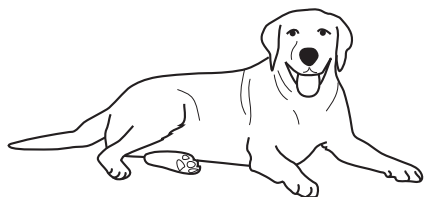
Area of trapezium = $\frac{1}{2} (a + b)h$



Volume of prism = (area of cross-section) \times length



1 Here are four dogs and their weights.



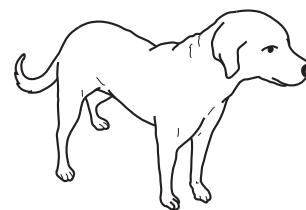
Charlie
30 kg



Max
7.5 kg



Simba
32 kg



Pippy
24 kg

- (a) (i) How much do Simba and Pippy weigh altogether?**
[1 mark]

(a)(i) _____ kg

- (ii) How much more does Charlie weigh than Max?**
Give your answer in grams.
[2 marks]

(ii) _____ grams

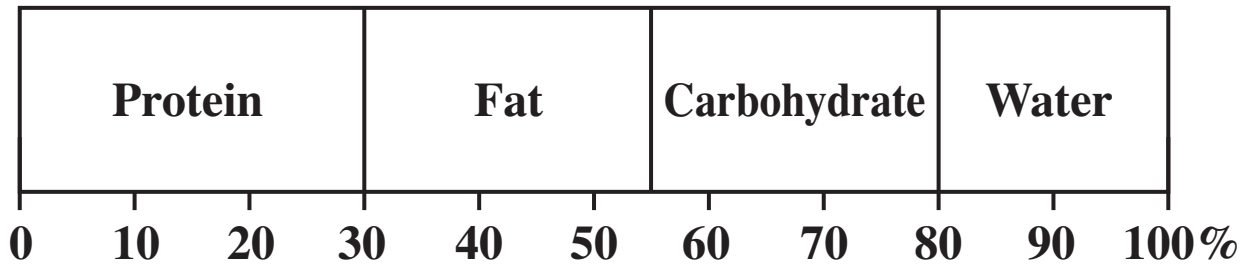
(b) Max is taken to the vets.

Complete the bill.

[2 marks]

Happy Vets	
Vaccination	£ 29.99
Microchip	£ 15.50
Nail Clip	£ 7.95
Total	£ .

(c) This percentage bar shows information about dog food.



**(i) What percentage of the dog food is Protein?
[1 mark]**

(c)(i) _____ %

(ii) Sue says:

80% of the dog food is Carbohydrate.

**Explain why she is wrong.
[1 mark]**

(iii) The dog food contains 25% Fat.

**Write 25% as a fraction.
[1 mark]**

(iii) _____

(iv) A tin contains 800 g of dog food.

**Work out 25% of 800 g.
[1 mark]**

(iv) _____g

(d) Pippy eats 6 dog biscuits each day.

**How many dog biscuits will she eat in 14 days?
[2 marks]**

(d) _____

- (e) Robert walks his dog, Max, each day.
He records the number of kilometres he walks for each of 11 days.

12 1 5 4 12 4 2 6 5 4 8

For these distances, work out

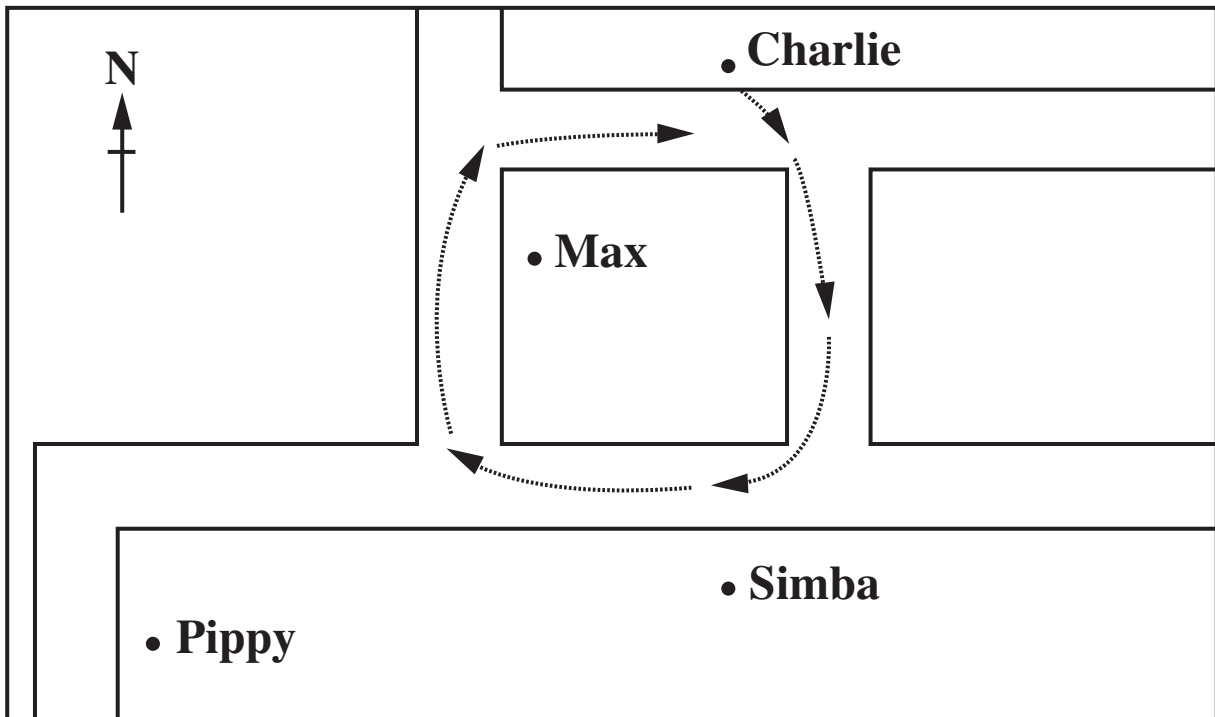
- (i) the median,
[2 marks]

(e)(i) _____ km

- (ii) the mode.
[1 mark]

(ii) _____ km

(f) This diagram shows where the dogs live.



(i) Use compass directions to complete these sentences.

Simba lives _____ of Charlie.
[1 mark]

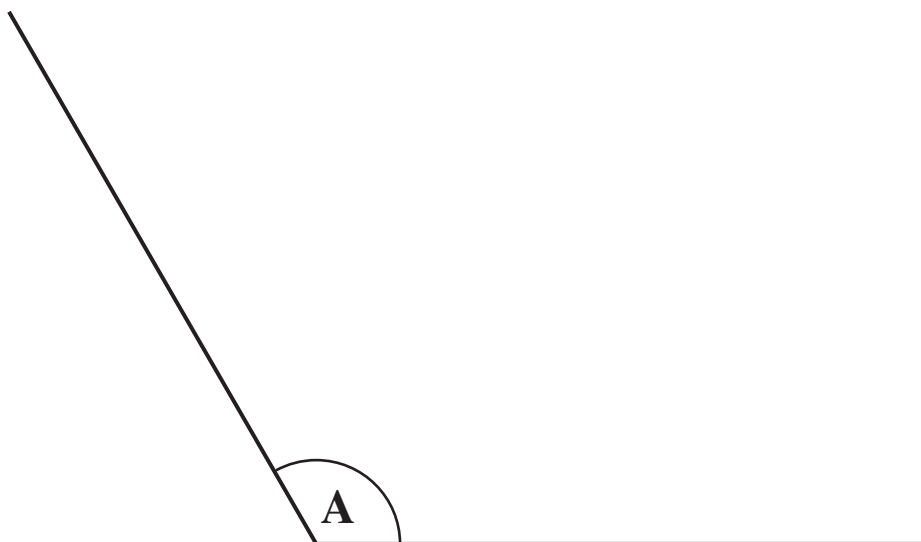
Max lives _____ of Pippy.
[1 mark]

(ii) When Charlie is taken for a walk, he goes in the direction of the arrows.

Does he walk in a clockwise or an anticlockwise direction?
[1 mark]

(f)(ii) _____

2 (a) The diagram below shows angle A.



**(i) Measure angle A.
[1 mark]**

(a)(i) _____ °

**(ii) What name is given to this type of angle?
[1 mark]**

(ii) _____

(b) Draw an angle of 35° at B below.

**One line has been drawn for you.
[1 mark]**



(c) Complete these sentences.

**An angle smaller than 90° is called
_____ [1 mark]**

**An angle bigger than 180° is called
_____ [1 mark]**

3 (a) Here are the first four numbers in a sequence.

17 14 11 8

**(i) Write down the next number in the sequence.
[1 mark]**

(a)(i) _____

**(ii) Explain how you worked out your answer.
[1 mark]**

(b) Here are the first five numbers in another sequence.

5 10 20 40 80

**Describe the rule for finding the next number.
[1 mark]**

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